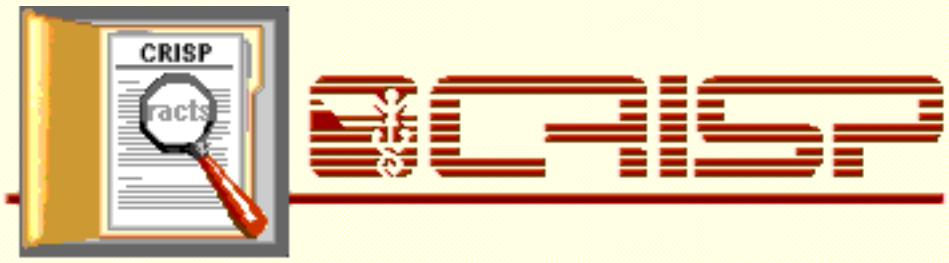
Version 2.0



Abstract

Back to Hit List

Grant Number: 5R01NR004901-03
PI Name: MITCHELL, PAMELA H.
PI Email: pmitch@u.washington.edu
PI Title: ELIZABETH S. SOULE PROFESSOR
Project Title: CPP MANAGEMENT--INFORMATION FEEDBACK & NURSING

Abstract: *The aim of this proposal is to evaluate, in the context of optimal medical management of cerebrovascular dynamics, the impact of a bedside system of cerebral perfusion pressure (CPP) information feedback on nursing moment-to-moment management of CPP, and the relationship of that management to patient functional outcome at discharge 3 and 6 months. Prevention or reduction of secondary brain injury is a key component of critical care management for patients with a variety of brain insults. Current clinical management emphasizes maintaining COO at or above 70mm Hg to minimize such secondary injury. However, due to poor ergonomics in clinical monitoring displays, it is likely that short episodes of decreased CPP are missed by attending nurses in the course of necessary patient repositioning, suctioning, and other routine therapeutic activities. Given the crucial role of neuronal perfusion in preventing secondary injury, beyond that of the original brain insult, refining the nurse~s ability to visualize and manage CPP on a moment-to-moment basis may allow measurable improvement in short and long-term patient functional outcome. Computer interfaces that provide visual information about CPP will be randomly allocated to beds in each of the 3 intensive care units used for patients with closed head injury or subarachnoid hemorrhage, in whom ICP monitors and arterial lines have been placed for medical management, stratified by primary diagnosis (CHI or SAH) and severity. Continuous data will be collected from 150 patients with 150 patients without the interface monitor for the duration of CPP monitoring, The primary hypothesis being tested are that Glasgow Outcome Score (GOS) 6 months post acute care discharge will be significantly better in those monitored with the continuous CPP display. Secondary endpoints are GOS at discharge and 3 months post discharge, Functional Independence Measure (FIM) score at discharge, 3 and 6 months,*

Process endpoint is the percentage of CPP below 70mm Hg during hospital monitoring, and the rate of cerebral oxygen desaturation during monitoring

Thesaurus Terms:
brain circulation, brain injury, hemodynamics, nursing skill /technique, patient monitoring device, perfusion
nursing care evaluation, patient care management
clinical research, human subject

Institution: UNIVERSITY OF WASHINGTON
3935 UNIVERSITY WAY NE
SEATTLE, WA 98195

Fiscal Year: 2001
Department: BIOBEHAVIORAL NRSG/HLTH SYS
Project Start: 01-APR-1999
Project End: 31-MAR-2002
ICD: NATIONAL INSTITUTE OF NURSING RESEARCH
IRG: NURS